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AF/ 2874
PATENT

Case Docket No. IGARA29.001AUS
Date: January 16, 2004
Page 1

In re application of : Nishita, Naoki
Appl. No. : 10/024,655
Filed : December 14, 2001
For : OPTICAL CONNECTOR
HAVING A LIGHT
EMITTING ELEMENT
AND A CONVERGENT
LENS

Examiner: Lin, Tina M.
Art Unit: 2874

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January 16, 2004

(Date)

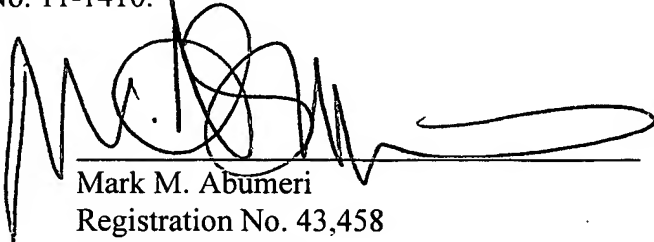
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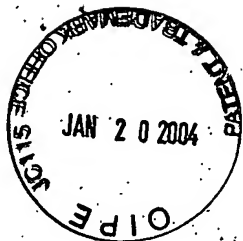
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Sir:

Transmitted herewith in triplicate is an Appellants' Brief to the Board of Patent Appeals:

- (X) Fee for filing brief in the amount of \$330.00 is enclosed.
- (X) "McGraw-Hill Dictionary of Scientific and Technical Terms", 3rd Ed., page 326 (1984); a copy of the pertinent page(s) is attached hereto.
- (X) A check in the amount of \$330.00 to cover the foregoing fees is enclosed.
- (X) If applicant has not requested a sufficient extension of time and/or has not paid any other fee in a sufficient amount to prevent the abandonment of this application, please consider this as a Request for an Extension for the required time period and/or authorization to charge our Deposit Account No. 11-1410 for any fee which may be due. Please credit any overpayment to Deposit Account No. 11-1410.
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McGraw-Hill DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS

Third Edition



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In addition, material has been drawn from the following references: R. E. Huschke, *Glossary of Meteorology*, American Meteorological Society, 1959; *U.S. Air Force Glossary of Standardized Terms*, AF Manual 11-1, vol. 1, 1972; *Communications-Electronics Terminology*, AF Manual 11-1, vol. 3, 1970; W. H. Allen, ed., *Dictionary of Technical Terms for Aerospace Use*, 1st ed., National Aeronautics and Space Administration, 1965; J. M. Gilliland, *Solar-Terrestrial Physics: A Glossary of Terms and Abbreviations*, Royal Aircraft Establishment Technical Report 67158, 1967; *Glossary of Air Traffic Control Terms*, Federal Aviation Agency; *A Glossary of Range Terminology*, White Sands Missile Range, New Mexico, National Bureau of Standards, AD 467-424; *A DOD Glossary of Mapping, Charting and Geodetic Terms*, 1st ed., Department of Defense, 1967; P. W. Thrush, comp. and ed., *A Dictionary of Mining, Mineral, and Related Terms*, Bureau of Mines, 1968; *Nuclear Terms: A Glossary*, 2d ed., Atomic Energy Commission; F. Casey, ed., *Compilation of Terms in Information Sciences Technology*, Federal Council for Science and Technology, 1970; *Glossary of Sinfo Terminology*, Office of Aerospace Research, U.S. Air Force, 1963; *Naval Dictionary of Electronic, Technical, and Imperative Terms*, Bureau of Naval Personnel, 1962; *ADP Glossary*, Department of the Navy, NAVSO P-3097.

McGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS,

Third Edition

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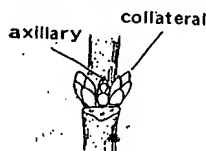
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COLLARD



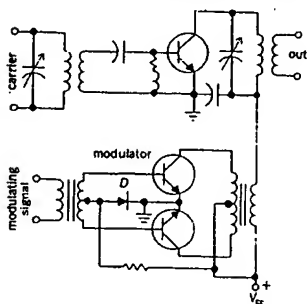
Collard (*Brassica oleracea* var. *acephala*).

COLLATERAL BUD



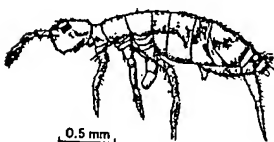
Collateral bud in a red maple.

COLLECTOR MODULATION



Circuit diagram of a collector-modulated transistor.

COLLEMBOLA



0.5 mm

A collembolan, *Entomobrya cubensis*. (From J. W. Folsom, Proc. U.S. Nat. Mus., 72(6), plate 6, 1927)

ability to resist collapse from exterior pressure or internal vacuum.

collapse sink [GEOL] A sinkhole resulting from local collapse of a cavern that has been enlarged by solution and erosion.

collapse structure [GEOL] A structure resulting from rock slides under the influence of gravity. Also known as gravity-collapse structure.

collapsing pressure [MECH] The external pressure which causes a thin-walled body or structure to collapse.

collar [DES ENG] A ring placed around an object to restrict its motion, hold it in place, or cover an opening. [MIN ENG] The mouth of a mine shaft. [NAV ARCH] 1. An opening in the end or bight of a rope or cable supporting a mast that goes over the masthead. 2. A ring or loop of metal, rope, or other material, used to secure a heart or deadeye. 3. A fitting over a structural part passing through a bulkhead or deck.

collar beam [BUILD] A tie beam in a roof truss connecting the rafters well above the wall plate.

collar bearing [MECH ENG] A bearing that resists the axial force of a collar on a rotating shaft.

collar cell See choanocyte.

collard [BOT] *Brassica oleracea* var. *acephala*. A biennial crucifer of the order Capparales grown for its rosette of edible leaves.

collared hole [ENG] A started hole drilled sufficiently deep to confine the drill bit and prevent slippage of the bit from normal position.

collar locator log [PETRO ENG] Down-hole nuclear-log measurement to locate drill-hole casing collars, usually for precise location of perforating points.

collar vortex See vortex ring.

collate [COMPUT SCI] To combine two or more similarly ordered sets of values into one set that may or may not have the same order as the original sets. [GRAPHICS] To assemble in proper sequence all the sheets, signatures, or insertions for a printed piece.

colla tempestade See colla.

collateral bud [BOT] An accessory bud produced beside an axillary bud.

collateral series [NUC PHYS] A radioactive decay series, initiated by transmutation, that eventually joins into one of the four radioactive decay series encountered in natural radioactivity.

collating sequence [COMPUT SCI] The ordering of a set of items such that sets in that assigned order can be collated.

collating unit [COMPUT SCI] An electromechanical device capable of performing singly or simultaneously the merging, sequence-checking, selection, and matching of punched cards. Also known as collator.

collator See: collating unit.

collecting tubule [ANAT] One of the ducts conveying urine from the renal tubules (nephrons) to the minor calyces of the renal pelvis.

collection trap [ANALY CHEM] Cooled device to collect gas-chromatographic eluent, holding it for subsequent compound-identification analysis.

collective [METEOROL] In aviation weather observations, a group of observations transmitted in prescribed order by stations on the same long-line teletypewriter circuit. Also known as sequence.

collective bargaining [IND ENG] The negotiation for mutual agreement in the settlement of a labor contract between an employer or his representatives and a labor union or its representatives.

collective fire [ORD] Combined fire of various small arms concentrated on a given target or area.

collective motion [NUC PHYS] Motion of nucleons in a nucleus correlated so that their overall space pattern is essentially constant or undergoes changes which are slow compared to the motions of individual nucleons.

collective transition [NUC PHYS] A nuclear transition from one state of collective motion to another.

collector [ELECTR] 1. A semiconductor region through which a primary flow of charge carriers leaves the base of a transistor; the electrode or terminal connected to this region is also called the collector. 2. An electrode that collects electrons or ions which have completed their functions within an electron tube; a collector receives electrons after they have done useful work; whereas an anode receives electrons whose useful work is to be done outside the tube. Also known as electron collec-

tor. [ENG] A class of instruments employed to determine the electric potential at a point in the atmosphere, and utilize the atmospheric electric field; all collectors consist of a device for rapidly bringing a conductor to the same potential as the air immediately surrounding it, plus some form of electrometer for measuring the difference in potential between the collector and the earth itself; collectors differ widely in their speed of response to atmospheric potential changes.

collector capacitance [ELECTR] The depletion-layer capacitance associated with the collector junction of a transistor.

collector cutoff [ELECTR] The reverse saturation current of the collector-base junction.

collector junction [ELECTR] A semiconductor junction created between the base and collector electrodes of a transistor.

collector modulation [ELECTR] Amplitude modulation which the modulator varies the collector voltage of a transistor.

collector plate [ELEC] One of several metal inserts that sometimes embedded in the lining of an electrolyte cell to increase the resistance between the cell lining and the current leads as small as possible.

collector resistance [ELECTR] The back resistance of the collector-base diode of a transistor.

collector ring See slip ring.

collector voltage [ELECTR] The direct-current voltage, obtained from a power supply, that is applied between the base and collector of a transistor.

Collembola [INV ZOO] The springtails, an order of primitive insects in the subclass Apterygota having six abdominal segments.

collenchyma [BOT] A primary, or early-differentiated, subepidermal supporting tissue in leaf petioles and vein ribs formed before vascular differentiation.

collenchyme [INV ZOO] A loose mesenchyme that fills the space between ectoderm and endoderm in the body wall of many lower invertebrates, such as sponges.

collenla [PALEOBOT] A convex, slightly arched, or turbinated stromatolite produced by late Precambrian blue-green algae of the genus *Collenla*.

Colles' fracture [MED] A fracture of the radius about 1 in (2.5 centimeters) above the wrist with dorsal displacement of the distal fragment.

collet [DES ENG] A split, coned sleeve to hold small, circular tools or work in the nose of a lathe or other type of machine.

collet [ENG] 1. The glass neck remaining on a bottle after it is taken off the glass-blowing iron. 2. Pieces of glass, ordinarily discarded, that are added to a batch of glass. Also spelled collet. [HOROL] A small, friction-tight collar on a balance staff which holds the inner end of a balance spring. [LA] The small, horizontal face at the bottom of a brilliant-cut gemstone.

Colletidae [INV ZOO] The colletid bees, a family of hymenopteran insects in the superfamily Apoidea.

colliculus [ANAT] 1. Any of the four prominences of the corpora quadrigemina. 2. The elevation of the optic nerve where it enters the retina. 3. The anterolateral, apical elevation of the arytoid cartilages.

2,4,6-collidine [ORG CHEM] $(CH_3)_3C_3H_2N$ A liquid boiling at 170.4°C; slightly soluble in water, soluble in alcohol; used as a chemical intermediate. Also known as 2,4,6-trimethylpyridine.

colliding-beam source [ELECTR] A device for generating beams of polarized negative hydrogen or deuterium ions, which polarized negative hydrogen or deuterium atoms are converted to negative ions through charge exchange during collisions with cesium atoms.

colliery [MIN ENG] A whole coal mining plant; generally the term is used in connection with anthracite mining but sometimes to designate the mine, shops, and preparation plant of a bituminous operation.

colligative properties [PHYS CHEM] Properties dependent on the number of molecules but not their nature.

collimate [PHYS] To render parallel to a certain line or direction; paths of electrons in a flooding beam, or paths of various rays of a scanning beam are collimated to cause them to become more nearly parallel as they approach the storage assembly of storage tube.

collimating lens [OPTICS] A lens on a collimator used to focus light from a source near one of its focal points into a parallel beam.

collimating sight [ORD] Sight equipped with a collimator.